

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:

- (A) NAME: NESTEC S.A
- (B) STREET: AVENUE NESTLE 55,
- (C) CITY: VEVEY
- (D) STATE OR PROVINCE: VAUD
- (E) COUNTRY: SWITZERLAND
- (F) POST CODE: 1800
- (G) TELEPHONE: 021 924 26 09
- (H) FAX: 021 924 28 80

(ii) TITLE OF THE INVENTION: COFFEE MANNANASE

(iii) NUMBER OF SEQUENCES: 7

(iv) COMPUTER READABLE FORM

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1613 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

TTCATTAAAA ATGGCCTTCT CCAGGAGAAG CAATATCAGC AACTTCTCTT GCTGCTTCCT	60
TGTGATCATC GTCTTATCCC TGCATTGCGA AAATCATATA GTTTCTTCTT CTGCTTCGCG	120
CTTTATTCAA ACAAGAGGAA CCCGATTCGT GTTAGGTGGC TACCCATTTT TTTTCAATGG	180
GTTCAACTCC TACTGGATGA TGCATGTTGC AGCTGAGCCA AGTGAAAGGC ATAAAATTTC	240
CAATGTATTT CGCGAGGCTG CTGCTACAGG GCTTACTGTT TGCCGGACAT GGGCATTTCAG	300
CGATGGTGGC GATCGAGCTC TTCAAATGTC CCCCAGAGTC TATGATGAAC GTGTCTTTCA	360

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GGCCCTTGAT TTTGTGGTAT CGGAAGCAAG GAAGTATGGA GTTCACTTAA TCCTGAGTCT      420
GACCAACAAC TACAAGGACT TTGGAGGAAG GACGCAATAC GTGACGTGGG CTAAAAATGC      480
CGGAGTACAA GTGAATAGCG ATGATGATTT TTACACCAAG AATGCTGTCA AGGGATATTA      540
CAAGAATCAC ATTAAGAAAG TGTGACTAG GATCAACACA ATCAGTAGAG TTGCATATAA      600
AGATGATCCA ACAGTCATGG CATGGGAGCT AATAAATGAA CCTCGTTGCC AGGTCCACTT      660
CTCCGGAAAA ACCTTAAATG CTTGGGTTCA AGAAATGGCA ACTTACGTCA AATCACTCGA      720
TAACAAACAC CTTCTAGAAA TAGGCATGGA GGGATTCTAC GGAGATTCAA TGCCAGGCAA      780
AAAGCAGTAC AATCCTGGAT ACCAAGTGGG CACAGATTTT ATCACCAATA ATCTTATCAA      840
AGAGATAGAT TTTGCAACCA TTCATGCATA TCCCAGATATT TGGCTGTCTG GACAGAGCGA      900
CGGTGCACAG ATGATGTTCA TGAGAAGGTG GATGACCAGT CACTCCACAG ACTCTAAGAC      960
CATACTTAAA AAACCATTGG TTCTCGCTGA ATTTGGGAAA TCAAGTAAAG ATCCAGGATA     1020
CAGTTTATAT GCCAGGGAGT CATTTCATGGC CGCAATTTAC GGTGATATCT ACAGGTTTGC     1080
TAGAAGAGGA GGCATTGCAG GTGGATTGGT TTGGCAAATC CTGGCCGAGG GAATGCAACC     1140
GTACGCAGAT GGGTATGAAA TTGTCTTGTC TCAGAACCCA TCAACCGGAC GAATCATAAG     1200
CCAACAGTCT CGACAAATGA CTTCACTCGA CCATATGAGC AGTAATAGAA CCAATTCTCA     1260
AAGCAACAAA CTGCGCAATT CAAAGGAGCA GTGATCAGTC TTCCAGAAAG TCTACTTGAG     1320
TTTGTTCGTA TGTCAAAATC AAGTATCAAC CATAGAAATT TCCATTATAT TCGGAGTGTT     1380
TTAGTCAAGT TCTAGTAATA CCGCTGGAGT CATGATAGTT ATGACAGTAA TACCGCTGGA     1440
GTCAAGTTCT AGTAATACCG TTGGAGTCAA GTTATGATAG TTATTTAAAA ATTAGTATTT     1500
TATTACAAAT TTGTTATTGT TGTGAGACTT GTTTATTAAG TAAATGGAAA GTCTTATCAT     1560
TATTATCATT TGAGAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAA             1613

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(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 427 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: [lacuna]

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

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Met Ala Phe Ser Arg Arg Ser Asn Ile Ser Asn Phe Ser Cys Cys Phe
1              5              10              15
Leu Val Ile Ile Val Leu Ser Leu His Cys Glu Asn His Ile Val Ser
              20              25              30
Ser Ser Ala Ser Arg Phe Ile Gln Thr Arg Gly Thr Arg Phe Val Leu
              35              40              45

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Tyr Ser Leu Tyr Ala Arg Glu Ser Phe Met Ala Ala Ile Tyr Gly Asp
 340 345 350
 Ile Tyr Arg Phe Ala Arg Arg Gly Gly Ile Ala Gly Gly Leu Val Trp
 355 360 365
 Gln Ile Leu Ala Glu Gly Met Gln Pro Tyr Ala Asp Gly Tyr Glu Ile
 370 375 380
 Val Leu Ser Gln Asn Pro Ser Thr Gly Arg Ile Ile Ser Gln Gln Ser
 385 390 395 400
 Arg Gln Met Thr Ser Leu Asp His Met Ser Ser Asn Arg Thr Asn Ser
 405 410 415
 Gln Ser Asn Lys Leu Arg Asn Ser Lys Glu Gln
 420 425

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "SYNTHETIC OLIGONUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GGNATGGARG GNTTYTAYGG

20

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "SYNTHETIC OLIGONUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TTTTTTTTTT TTTT

15

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc - "SYNTHETIC NUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

AAATCTGTGC CCACTTG

17

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc - "SYNTHETIC NUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

GTAAAACGAC GGCCAGT

17

(2) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc - "SYNTHETIC NUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

CAGGAAACAG CTATGAC

17

(2) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: [lacuna]
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

Ser	Phe	Asn	Phe	Val	Lys	Thr	Arg	Gly	Thr	Glu	Phe	Val	Met	Asp	Xaa
1				5					10					15	
Arg Phe Leu Tyr Leu															
20															

(2) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: [lacuna]
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

Thr	Trp	Ala	Phe	Ser	Asp	Gly	Gly	Tyr	Arg
1				5				10	

(2) INFORMATION FOR SEQ ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 17 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: [lacuna]
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

Glu	Tyr	Asn	Pro	Gly	Tyr	Gln	Val	Gly	Thr	Asp	Phe	Ile	Ser	Asn	Asn
1				5					10					15	

Arg

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc - "SYNTHETIC NUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

GTCTTATCCC TGGATCCCGA AAATCATATA GTTCT

36

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 40 base pairs
- (B) TYPE: nucleotide
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc - "SYNTHETIC NUCLEOTIDE"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

GTACTCTGCA GACTTTCTGG AAGACTGATC ACTGCTCCTT

40